

Other SIV  
Amino Acids

438

CONSENSUS_VER	Mk?t..lgi?gil?IGIgivls?kqQW?TVFYG?PVWK.NSSVQAFCMPTTrLWATTNCIPDDHDYT...EVPL.NIT.EPFEAWaDRNPLvAQAgSNIHLLFEQT1KPCVKLSPLCIKM?CVELnssr??	115
VER_TYO	-RY..IITL-IV-----I---I----S-----G---I--A----M-----N-----T-ER	122
VER_3	--L..-L.I--L---V--NTR--V-----S-----S-----S-----EPT	123
VER_155	-TKF...-FIV-G---GI-T---I---V-----N-----KG-ATS	124
VER_963	--PL...-VL-AI---SSL--ER-V--I-----S-----RN	123
VER_1E	.....	0
VER_2B	.....	0
VER_266E	.....	0
VER_2010E	.....	0
VER_385E	.....	0
CONSENSUS_GRI	MGRL..LIKILIIAIGISIGIG..NLYVTVFYGIPVWK.NSTVQAFCMTPNTNMWATTNCIPDDHDNT...EVPL.NIT.EAFAEW.D.NPLVKQAESNIHLLFEQTMRPCVKLSPICIKMSCVELNGTATT	120
GRI_3E	.....	0
GRI_677	.....	120
GRI_2E	.....	0
CONSENSUS_TAN	MGPLRGKGVLVLIGLSLIGLLYGTQYITVFYGIPVWK.NSS?QAFCMTPNTNLWATTNCIPDDH?YT...EVQL.NVS.EKFEAWKDRNPLVAQAESNIHLLFESTLKPCVKLTPMCI?MNCT?L?S??P?	118
TAN_B05	.....	0
TAN_TAN1	-----V-----D-----K---K-T-TA-T	126
TAN_B30	.....	0
TAN_B53	.....	0
TAN_B14	X-----N-----R---R-P-PT-S	85
TAN_1E	.....	0
TAN_17E	.....	0
TAN_40E	.....	0
TAN_49E	.....	0
CONSENSUS_SAB	MKLL..TVLLWLSGCWSLVWL..VQYVTVFYGIPVWK.NSSVQAFCKTPNTNLWASTNCIPDDEPEGTIAEVPIPNTI.EKFDAWKRNPLVGQAESNIHLLFESTLKPCVKLSPMCIKMNCYRLEGAAT	125
SAB_1C	-----	125
SAB_SD29	.....	0
SAB_SD30	.....	0
SAB_SD37	.....	0
SAB_SD45	.....	0
SAB_2B	.....	0
SAB_3E	.....	0
SAB_4E	.....	0
SYK_SYK	MAAF..RTYIVCLFSLISLGFMKEQQYVTVFYGIPHED.AYAPLFCTTSKGWATKNCP.SADQI...EVRV.NITGEYFPWNSSHMIRQQILEDMSALFLQANRPCVKLAPMCIRMLCTLDNSPATs	124
LHOEST_LHOEST	MACP...GLGILLLLGIIWG...KQYVTVFYGVNPWDNVSPPLICASANTSLWVTTSCLPDLQSYA...EVPIYNISENFTEPKDNQVI.QQAWSAMNAMVDSIMKPCVKINPYCVRMOCGEVTKPTT	122
SUN_SUN	MRCP..EILIGFSLLLGSIA...IQYVTVFYGTGPWE.PAVVPLICASANNSLWVTTSCLPDLQTYA...EVPIITGLEENFTEGISNNQIV.QQAWQAMTSMDAIMKPCVKINPYCVKMKCPPKPTTSS	121

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CONSENSUS_VER	ttptstta?t t??????glPCv?nkt??nLgsCNa?iIEke???E?ASNCTFAMAGY?RDQKKn?YSVVWNDAEiyCKn?t??Ns??kE.....	CYMIHCNDSVIKEACDkTYWDeLRlRyCAPAG
VER_TYO	A-TPT--PKS-----G.PTSGE-----S---R-MED-P-----V-----Y-----K-----M-----Q-----TS-----Q-----	214 235
VER_3	--K---S--NITASTTT---Q---STV-E---ET---LNE-P-----V-----K-----M---KG..-NSNR-----	241
VER_155	-PA----G-K-----R.-DS-----DT-----MND-A-----I-----F--RS-SH-GT-----	236
VER_963	P---ASTTKA...PKT-D-IKSTNNNV--P--SL--E-LEE-A-----I-----SSSS-ST-----E-----	241
VER_1E	.....	11
VER_2E	.....	11
VER_266E	.....	11
VER_2010E	.....	0
VER_385E	.....	11
CONSENSUS_GRI	KATTTATTTMT.....TPC.....QNCSSTEQIEGEMAEEPASNCTFAIAGYQRDVKKN.YSMTWYDQEELVCNNKTGSEKGSKD.....	CYMIHCNDSVIKEACDKTYWDTLrvRYCAPAG
GRI_3E	.....	224 11
GRI_677	.....	224
GRI_2E	.....	11
CONSENSUS_TAN	SS??T?????.?PCP?T???.??CN?LVTNSM??ENSS?C?FAMAGY?RD?KK?.YNSTWYD?EL?CE?E???.??RG.....	CYMIHCNDSVIKEACEkTYWDTLRLyCAPAg
TAN_B05	....TP-SSSTT.....D---N-DES.....S-AT-----DY---I-S---R-V-K-----Q-V-K-NNT.TGT-----	194 0
TAN_TAN1	....TP-SSSTT.....D---N-DES.....S-AT-----DY---I-S---R-V-K-----Q-V-K-NNT.TGT-----	233
TAN_B30	.....	0
TAN_B53	....ST-RTTRN.....G-TN.....DE-SH----EF---M-T----M-Q-T-----A-M-P-SKK.NS-----A	0
TAN_B14	....ST-RTTRN.....G-TN.....DE-SH----EF---M-T----M-Q-T-----A-M-P-SKK.NS-----A	190
TAN_1E	.....	11
TAN_17E	.....	11
TAN_40E	.....	11
TAN_49E	.....	11
CONSENSUS_SAB	TTSPSTSTA.....RPEVVSVGF.....NDSVIEQEMEKEQAMNCASFAMAGYRRDVKKN.YSTVWDDQEVVCEEGREKSNATHTVG.....	CYMIHCNTSVIKEACDKTYWDTFLRyCAPAG
SAB_1C	.....	232 232
SAB_SD29	.....	0
SAB_SD30	.....	0
SAB_SD37	.....	0
SAB_SD45	.....	0
SAB_2E	.....	11
SAB_3E	.....	11
SAB_4E	.....	11
SYK_SYK	TPTTSPPTT.....PPNETWWGDNSTEPRFNCNFNLGGFKDKKQQ.YRAFFYKDDLMKEEGNSSY.....YYLLHCNTSVISAACEKQTFPFPiQYCAPPG	216
LHOEST_LHOEST	TPKTTTQ.....MPCFINEQVTVKNPGNETRLEEDLNCTRLNETTERNAECQYNTGLCRDCRTEIKQSFRYDDVTCGERENRTCYMTHCNDSIITQDCNKGVMQNAYFRLyCAPAG	235
SUN_SUN	NSTVKSS....CDYWTTTAKTTQTTQSST....SSTASTTPMPLDWNCNTDTENIA.ESNKVCKYNTGLCRDCKTEVEQNFRDTEVTCNG...NDTCYMTHCNDSIITQDCCHKGIMQNAYFRLyCAPAG	239

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CONSENSUS_VER	eIvkLPk.....	drY?GTNdtekIylqRqfGDPEaaNLWFNCqGEFFYcKMDWfLNY1NNlt.....vdadH??NqC?n?t??k?kg?raPGPCvQRTYVacHIRSVindwytiskk			433
VER_TYO	K--E----	--K---N---H----W----S-----K-----W-Y..-F-SS...-K--.H-----Y-----S--L---			459
VER_3	--	--Q----E----L-----R-----P--.-P-.G..-G--.K----A-----L-R-			466
VER_155	--	E--Q----N-F-----QS-----H-K-N..AG--.S			461
VER_963	--I--	--R-----N----S-E--.K--.N			466
VER_1E	K--E--	E--Q----KQ-F---W---S---H---M--I-----N..-N--S-QG...KR--G-----KLAR-			234
VER_2B	--T--P	HK-R----F-----S--.GSR.TSP...-A-----S--.GSR.TSP...-A-----			236
VER_266E	--N--	E--R----PKR-FF--W---T---H-----E-K-TSGT-SGNK-----IWLE-			240
VER_2010E	--	--Q--AQ-----I-----N-NT-R--K-G..TS...A-----V---V-L			193
VER_385E	--	--R----Q--T--W-----S-----K-----WN-----D-S--.TG--			236
CONSENSUS_GRI	evKk?	KNLTeV?ienIhLRrqWGDPEaANFWFnCqGEFFYCKMDWFINY1NN?T.....vdAdG???C?...??k kp?.GPGPCvqrTYVACHIRQVVNDWYTltKK			434
GRI_3E	KI-EE.	--K-----H-----Q-----KS...TSH-GQ...AKK			232
GRI_677	--V--	--S--I--S-----R...E-E-TNRT-D...KG--VS--			445
GRI_2B	--A--	--TDD-K-----S-----I--E--.NK...NKP-G--			228
CONSENSUS_TAN	TIVkLPk.....	ekYqGtnntkqIWlrRQWGDPPEAA niWfNCqGEFFYCTPDWfvNwLNNeSasgrnv dVEG..N?C?n?t..tggltg s?rkClKRtY VacHIRSvVNDWYtLskK			420
TAN_B05	--T--	.V-----Y-----N-T-L-----K-PDR--S-----			178
TAN_TAN1	--E--	--R----R--S-----L-----N-----N-TT-----KDKP-Y-----P--I-----			457
TAN_B30	--A--P	--A-----D-E-AQK-----D-P-T--.M-----Q-----			141
TAN_B53	--A--	--HS-----KQ-----Y-----ED-TLL-----K-A-T--.PP--T-----S-----I-----FH-			134
TAN_B14	--	H--D-K-----S-----L-----L-Y-----SE-SFT-----R-S-I--.S-----T-----GL-----LQ-----			421
TAN_1E	--E--	--R--R--S-----L-----N-----N-----T-KD..KR-Y-----P--I-----			235
TAN_17E	--	--R--D-K-----Y-----D-RR-KE-----D-----KD..P--F--S--P-----			233
TAN_40E	--	--K-TE-----M-----D-KS-N-----T-----PEKD...-L-K-----			235
TAN_49E	--R--	DR-S--N-----G-NYT-----P-S-S..K-M-----G-----S-----			241
CONSENSUS_SAB	tivklpp.....	?rYsGTndtskIFLQRQWGdPEaEfffFfnCQGEFFYCKMDWFLNyLNngs.....VdPdH..NpC.....??tknndkkCWqRtYvPCHIrQvVNDWYTLsKK			448
SAB_1C	--R--	KK----N-----S-----K-----N-----A--T-P-----			451
SAB_SD29	EL--	EK-Q-----L-W-----LT-----K-----NKG			144
SAB_SD30	--K--	D-----S-----F-----N-----Q-----I-----			145
SAB_SD37	E--K--	EK-Q--H-EQ-----S-I-----K-----G-----S-----R--N-----			126
SAB_SD45	--AAM-N	ST-T--RN1-Q-----S-NLL-----N-----Q-----KT-----A-N-----A-----			143
SAB_2E	K--A--	D-----N-----N-----GGND--.R-----I-----			232
SAB_3E	--A--	D--Q--K--N-----N-----N-T-----N-TS-----N-A-----			230
SAB_4E	E---S-----	E--KN-Q-----G-----N-----N-T-----PKS--R-----			230
SYK_SYK	QATKTWK.....	NVTNTTWRSPQPGDLEVTRHWFQCGGEFFYCNVSKLFANITNGNASKNNYASNLR.....		LSCAIRQIINDWRYVRKL	423
LHOEST_LHOEST	MLKELNAEAMNYTEGT...GTCDSKKTTGRKLGLPIANMTRHGADLATEMLMHTCGEEMFFCNVTRIFQEWNKNSDKWYP.....			WANCHIKSIIDDWATIGKK	461
SUN_SUN	LLRQVEPLANMSNGCTFDNITKTCRFTNGTDFKKMIKFPMKMHGADAATEMLMMTCGEEMFFCNLTRIFKVWNDTSNKWYP.....			WANCHIKSVIDDWASVGKK	467

Other SIV  
Amino Acids

442

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CONSENSUS_VER	tYAPPREGH...LqCtSTVTGMtVELN.YnnknRT.....	NVTLSPQIESIWAAeELgRYKLVEITPIGFAPTeVRRTGgherqKRV.PFVLGFLgFLGAAGTAMGAAataLTVQSqhLLAGI1QQQKNL				553
VER_TYO	-----R-----S-----				SS-----R-----	579
VER_3	-----S----S-----	T-----	D-T-----			586
VER_155	-----Q-----	T-----	Q-----			581
VER_963	V-----E-----NY-----	G-----N-----QD-S-----			M-----	586
VER_1E	-----E-----A-----IH-----	A-S-----P-----P.S-E-----				353
VER_2B	-----SR-----	D-----	--Q-----T-----			356
VER_266E	-----E-----IP-----	D-----				360
VER_2010E	-----E-R-----QS-----	Q-----A-----D-----				302
VER_385E	-----I-D-----T-----	SP-----I-----				356
CONSENSUS_GRI	tYaPPREGH...LECNSSvTALYveIn.YNNkSGPI.....	NVTLSpQvRSIWAYELGYKLVEITPIGFAPTDVRRYTGP.treKRV.PFVLGFLGFLGAAGTAMGAAATaLTVQSRHLLAGILQQQKNL				554
GRI_3E	-----T-----	S-----	.S-----			352
GRI_677	V-----A-D-----			T-----		565
GRI_2B	-R-----Q-----E-----I-----	.KQ-----			R-----	348
CONSENSUS_TAN	tYAPPREGH...LECtSTVTSmmvSLD.YnsKnmT.....	NVTLTANLENiwAYELGrYklleIkPIGFAPTevRRYvGP.TREKRV.PFVLGfLGFLGrAGAAMGATAaLTVQSQQLLAGi1QQQKNL				539
TAN_B05	-----	K-----				234
TAN_TAN1	-----ER-----	E-----I-----A-----				576
TAN_B30	-----	E-----				219
TAN_B53	-----I-----T-H-----	N-N-----				185
TAN_B14	R-----R-----L-----D-----					487
TAN_1E	-----ER-----	E-----I-----A-----M-----				354
TAN_17E	-----VN-----	I-----D-----S-----E-----				352
TAN_40E	-----IIA-----N-----I-LY-----					354
TAN_49E	-----	E-----E-----				360
CONSENSUS_SAB	TYAPPREGH...LECnSTATAlYVELn.YNsKNrT.....	NVTLsPqIrSIWanELGdyKLVEIKPIGFAPTeVRrYTGP.ERQKRV.PFVLGFLGFLGAAGAAMGAAATaLTVQSQQLLAGi1QQQKNL				567
SAB_1C	-----	E-----K-----				570
SAB_SD29	-----T-----	H-----				192
SAB_SD30	-----M-----L-----	L-----F-----K-----				223
SAB_SD37	-----Q-----H-----G-----					162
SAB_SD45	-----Q-----T-----H-----	SY-----S-----				198
SAB_2E	-----L-----H-----	H-E-----				351
SAB_3E	-----	E-----				349
SAB_4E	-----	N-----				349
SYK_SYK	IYLPPTAGH...IKCTSNVTAVLDIE.YYPGSTL.....	NFTPTANVEDVWRADLFNYKLQIKPIGFAPTDQRRYELPNNTREKRAAPLAFLGLLSSAAGTAMGGAATaLTQSQTLLAGi1VQQQKQL				544
LHOEST_LHOEST	IYLPPTSGFNNRIRCTHRVTEMFFEMEKWEPEHDLGGNLS.IKFLPPSWETNQFVAEGSKYKLICKLNPIGFAPTDEHYR.APRGRQTRAAPLAFLGALGLLSSAAGTAMGLVSTILTQQAQAVLQGILQQQKQL					591
SUN_SUN	IYLPPTSGFNNRIRCANRVTEAWFTLERVEDWKVNGSNISVVAFQPPTNTLNQFVSTGAHYKLVRIRPIGFAPTDEHYR.AP.RKEKRAAPVALGALALLSSAAGTAMGLVSTILTQQAQAVLQGILQQQKQL					597

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CONSENSUS_VER	LAAVeAQQQMLKLTlWGVKNLNARVTALEKYLeDQARLNaWGCAWKQVCHTTVpW.....gW?NrTPdW?NMTWLEWERQI??LEgNIT?QL?kAREQEEKNLDAYQkL?sWSdFWsWFDFSKWLNLkI	671
VER_TYO	-----S-----E-----P-T-----Q-----AD-S-G-V-----T-----M	704
VER_3	-----G-----A-----N-----N-----SY-----T-EE-A-----S-----	711
VER_155	-----G-----A-----T.-N-E-N-----K-EG-----K-EQ-----SD-S-----	705
VER_963	-----V-----Q-M-N-Q-----GE-----E-V-----R-T-N-----	711
VER_1E		372
VER_2B		375
VER_266E		379
VER_385E		375
CONSENSUS_GRI	LaAVEQQQQLLKLTlWGVKNLNARVTALEKYLEDQARLNsWGCAWKQVCHTTVpW.....KY.NNTPKWDNMTWLEWERQINALEGNIQLLEAQNQESKNLDLYQKLDDWSGFWSFSLSTWLGYVKI	678
GRI_3E	-V-----	371
GRI_677	-----.	689
GRI_2E	-----	367
CONSENSUS_TAN	LAAVEQQQMLKLTlWGVKNLNARVTALEKYLEDQTRLNlWGCAFQVCHTTVpW.....TF.NNTPDWENMTWQEWEQSITALEGNIStTLVKAyEQEKNMDTYQKLGDWTsWNIFDVSSWFWWIKW	663
TAN_TAN1	-----.	700
TAN_1E		373
TAN_17E		371
TAN_40E		373
TAN_49E		379
CONSENSUS_SAB	LAAVEQQqQMLKLTlWGVKNLNARVTALEKYLEDQARLNiWGCAFQVCHTTVLW.....KY.NNTPDWENMTWQEWEQIEKYEANiSRILEQAHEQEQQEKNLDSYQKLVSWSDFWSFDTKWFGWMKI	691
SAB_1C	-----.	694
SAB_2E	-----.	369
SAB_3E	-----.	368
SAB_4E	-----.	368
SYK_SYK	LEAVEAQHQHLLGLTVWGVKNLNARLTALETYLRDQAiLSNWGCAFQICHTAVTWEKACGNNSNFCPKPQWKNMtWHRWEQEVDNLTDHIDGLLREAQEQQERNVHDLTKLQEWDSLWSWFDSLKWFFYLKI	676
LHOEST_LHOEST	LVLVEKQQELLRLTlWGVKNLQARLTAEYVHKHQALLASWGQCQWKQVCHTNVW.....TY.NITPNWTKDTwREWEskvAIYDKNITSLLQEAyTTELENQNKFKKLQEF.NFWSWLDisHWFtYVky	714
SUN_SUN	LVLVEKQQELLRLTlWGVKNLQARLTAEYVQDQSLLASWGQCQWKQVCHTNVPW.....NY.NITPNWTKDTwMEWDRQVKMYDDNITALLQEAyVTELENQNKFQQLQEF.NFWSWLDSLsQWFlyIKY	720

Other SIV  
Amino Acids

444

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CONSENSUS_VER	GFLvvvGiI.GLRLLYTvYsCi aRVRQGYsPLSPQIHIpw?KG?PdNAgeP?EGGd??k??sesWQK?Sgt??ks?wckrLTnWls.??stWLYNscLTLL.....	ihLR?AfQYiQYGLgELKtaA	778
VER_TYO	----I----.-----G--V-----V-----QVG---R---D---G---NSRIKL---.D----R.-MQ---A---T.RLN-----	-----Q---K---L---A---G-	819
VER_3	--D-L---.-----Q---EG-G---KR-NS---P---E---AEW-N-----C-.IS-I-----V---S-----A--	-----	832
VER_155	--A-I-V-.-----L-T-----Q-----E---RTG-SK-TH	-----	768
VER_963	-----I---G-----R-G-----E---ERDNDS-D---G---RQKRGs-S-----TF-----TF-----G-W-----	-----	832
CONSENSUS_GRI	GF.LVVIILGLRFAWVLWGCIIRNIROQYNPL.PQIHIHS.SAERP DNGGQDRGGESSSSK LIRLQEESSTPSRINNNWLNFK.SCSLRIRTWCYNICLTLL.....	IFIRTAVGYLQYGLQQQLQEAA	798
GRI_677	--.-----.	-----	809
CONSENSUS_TAN	GFYIVIGLIL.FRM AWLIWCGIARVRQGYFPLSPQINIRL.GRE QPDNAGGEDK..DSSSSRDKSPPSVKESLLPNRGGIQAEE RAWRQHLTNWCLTISSWLL.....	RLYQILRRSLTLLQQLRQEC	783
TAN_TAN1	-----.	-----	820
CONSENSUS_SAB	AIMVIAGII.VARVLLVIIGILRKFRKGYAPLSSLPSSH		729
SAB_1C	-----.		732
SYK_SYK	GFYVIGALV.LLRLVSFSVGIK NLLGGYVPIQNPTQ...GRKD PGKPA...DEEEGSGDREGLNVTSR ELSRQSLEAGQQLWRTVCSSFRSLIRQLTIT....WGFISYGFNELKIAASLGREIR		795
LHOEST_LHOEST	AVLII L VII.GLRVLSFI IQNVVKMCRGYRVLSPSYIEQDYKWEKEENQEQPDREEEKGADTETI...YINLEQCKKESSRPLWN.VDWNEPLQDSLLVTLLKWLKEGGILLLSLVWQSLSWLWHLLL IFF		841
SUN_SUN	AVLIIGIII.AARILSFI IQQIYRMCQGYRVLSPSAYVEQDWLQETCPKPT..DKEEEETEKERI...YINLEQSKKESLPPPWT.VDWDEPLRDSLLVTLLKWLKA GIVLAQNIYHLLSFLWHLTTSF		845

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CONSENSUS_VER	QEa??alAr?AQNAghQ.....IWLACRSaYR?IinSPRRVRQGLEeILN.		819
VER_TYO	--ILOT--GV---C-----N-V-----		863
VER_3	--VV---L---Y-----A-----G-----		877
VER_963	--RL-V-F-----T-H-S-----		877
CONSENSUS_GRI	TGLAQALARAAREAWGR.....LGAIVRSAYRAVINS PRRVRQGLEKVLG		843
GRI_677	-----.		854
CONSENSUS_TAN	QYI QYGWQ QFKEGAARSFEALASA AQSASRTLWNACRSAYRAILEHPRMRQELERWFN		842
TAN_TAN1	-----.		879
SYK_SYK	DWVA AIWQAI YATRRV VEAVAAL.....PRRLRQGLEIYLN		832
LHOEST_LHOEST	QNGQRLWQTSSRWMVENAQKIQSWLREK.....CRRNRGQLSSTD RKNIQ...LGKKRWRLRGGRSGISSEATETAL		912
SUN_SUN	HHGQRLWQT LRGWLGS HL IQATS RIRNA.....CRTS RERVSSSQKARSRTFSLGRKWRPKWNTRGS RIPSETTE TLL		919